

TRANSMITTAL OF APPEAL BRIEF (Large Entity)

Docket No.
DE920000002US1

In Re Application Of: Frank Leymann et al

Application No.	Filing Date	Examiner	Customer No.	Group Art Unit	Confirmation No.
09/872,878	June 1, 2001	E. P. Leroux	33558	2171	3172

Invention:

Archiving In Workflow Management Systems

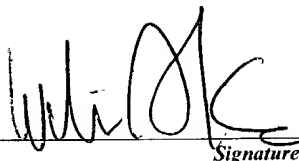
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Transmitted herewith in triplicate is the Appeal Brief in this application, with respect to the Notice of Appeal filed on August 9, 2004

The fee for filing this Appeal Brief is: \$340.00

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- ☒ The Director is hereby authorized to charge any fees which may be required, or credit any overpayment to Deposit Account No. 09-0463
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Signature

William A. Kinnaman, Jr. - Attorney
Registration No. 27,650
IBM Corporation - MS P386
2455 South Road
Poughkeepsie, NY 12601

Telephone No. (845) 433-1175

Dated: October 6, 2004

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] on

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IN THE U.S. PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Applicant: FRANK LEYMANN et al.	: Group Art Unit: 2171
Serial No.: 09/872,878	: Examiner: Etienne Pierre Leroux
Filed: June 1, 2001	: October 6, 2004
Confirmation No.: 3172	: William A. Kinnaman, Jr.
Title: ARCHIVING IN WORKFLOW MANAGEMENT SYSTEMS	: International Business Machines Corporation : 2455 South Road, Mail Station P386 : Poughkeepsie, NY 12601

APPLICANTS' APPEAL BRIEF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

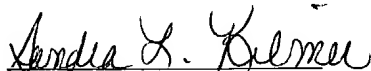
Dear Sir:

Applicants hereby submit their appeal brief in the above-identified application.

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Sandra L. Kilmer

October 6, 2004
Date:

REAL PARTY IN INTEREST

The real party in interest is International Business Machines Corporation, the assignee of record.

RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

STATUS OF CLAIMS

Claims 1-13, constituting all pending claims in the application, stand rejected and are on appeal. No claims have been allowed, nor have any claims been cancelled or withdrawn.

STATUS OF AMENDMENTS

A response after final rejection presenting arguments but no further amendments was filed May 13, 2004. Per an advisory action mailed July 23, 2004, this response was not entered because it was deemed not to place the application in allowance or in better form for appeal.

SUMMARY OF CLAIMED SUBJECT MATTER

Claim 1

Claim 1, upon which the remaining claims on appeal depend, is directed to a method of optimizing a workflow management system, or WFMS, that is executable by the WFMS on at least one computer system. The WFMS accesses a WFMS database (page 8, lines 21-22) containing as an object at least one process model (page 4, line 28) or an instantiation of the process model known as a process instance (page 8, lines 15-19). In accordance with the method, the object—i.e., a process model or one of its instantiations—is transferred from the WFMS database to an archive database (page 8, lines 21-22).

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

- I. All claims stand rejected as being either anticipated by U.S. Patent 5,930,512 to Boden et al. ("Boden") or unpatentable over Boden in combination with other art. Thus, claims 1, 2, 8 and 11-13 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Boden (paper no. 4, ¶ 2, page 2), while claims 3, 4, 6, 7, 9 and 10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Boden in view of U.S. Patent 6,067,548 to Cheng ("Cheng") (paper no. 4, ¶ 4, pages 3-5), and claim 5 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Boden in view of Cheng and U.S. Patent 4,864,569 to DeLucia et al. ("DeLucia") (paper no. 4, ¶ 4, page 6).

ARGUMENT

Claim 1, upon which the remaining claims depend, is representative of the claims on appeal and reads as follows:

1. A method of optimizing a workflow management system (WFMS), said method being executable by said WFMS on at least one computer system, said WFMS accessing a WFMS database containing as an object at least one process model or an instantiation of said process model (process instance), said method comprising the step of transferring said object of the WFMS database to an archive database.

As noted above, all claims stand rejected as being either anticipated by U.S. Patent 5,930,512 to Boden et al. ("Boden") or unpatentable over Boden in combination with other art. Since the remaining claims all depend on claim 1, it will be sufficient for the purposes of this appeal to address the Examiner's base rejection of claim 1 on Boden. This base rejection is clearly untenable, for the reasons stated below.

Boden describes a method and apparatus for building and running workflow process models using a hypertext markup language such as HTML. Beginning at column 7, line 65, the patentees discuss an insurance example involving an application for a life insurance policy. In the course

of execution of one of the activities making up that example, the insurance application is archived (Fig. 1: 324, col. 9, lines 16-17).

Boden bears a superficial similarity to applicants' system in that it relates to workflows and process models and discusses archiving. However, Boden merely archives the data¹ (the insurance application) being managed by the insurance model shown in Figs. 1-5, and even then only because the application implementing the "Archive Application" activity 324 is doing the archiving. There is no notion of archiving an object in the form of a process model or one of its instantiations as claimed by applicants.

Some further explanation may be helpful here. As is evident from a reading of Boden, a business process modeled by a WFMS consists of a set of activities (col. 4, lines 55-56); these are the nodes 302-372 shown in Figs. 1-3. An activity² is typically implemented via an executable of some type (col. 5, lines 22-29). When a WFMS carries out a business process, it navigates through the business process from one activity to the next. When an activity is being carried out, the WFMS invokes the associated executable (col. 5, line 23). The executable does whatever it is programmed to do, including accessing data in a data store, and when completed returns to the WFMS. The WFMS then continues navigation through the business process. Therefore, other than launching an executable, a WFMS does not concern itself with what the executable does.³ In Boden, for example, the WFMS would not even know that a life insurance application is being archived at step 324. Rather, that would be the concern of whatever application performed the "Archive Application" activity at step 324.

The Examiner cites (paper no. 4, page 8) the passage at column 12, lines 42-64, of Boden describing the workflow server 120 (Figs. 6-7). In pertinent part, that passage states that the

¹ This is akin to applicants' described step of archiving data from an application store, which is consistently distinguished from archiving objects from the WFMS database itself (page 2, line 29 to page 3, line 7; page 10, line 27 to page 11, line 12).

² More particularly, a program activity as opposed to a process activity that itself represents a process (col. 5, lines 30-35).

³ This is also noted at page 11, lines 9-10 of the specification. While Fig. 7 shows the specification of archiving and restoring programs for each activity at the process model level, this figure represents applicants' invention and not the prior art.

workflow server 120 has a buildtime module and a runtime module (lines 43-44), that FlowMark provides “as many separate FlowMark databases as are needed” (lines 58-59), and that one database may be used for developing and testing workflow models while another is used for executing tested models and operational processes (lines 62-64). None of this, however, has anything to do with transferring an object of a WFMS database to an archive database as claimed by applicants. Neither the development database nor the production database functions as an “archive database” relative to the other, nor is there any suggestion of transferring objects from one database to the other. Even if objects were transferred from one of these databases to the other, such transfer would be for the purpose of using such objects productively or for development, not archiving them as is implicit in the recited term “archive database”.⁴ On the contrary, any such transferred objects would be subject to replacement by other objects as the databases are updated—the very antithesis of an “archive database”.

Thus, there is no notion in Boden of archiving either the process model itself or an instance of that model as claimed by applicants, nor is there any notion generally of archiving anything at that level. While the application implementing activity 324 may archive particular data that it handles, it has no similar capability of archiving itself or the process level or process instance containing the activity, nor would the application be expected to have such a capability.

The remaining two references were cited against dependent claims rather than the base subject matter of claim 1. As they apply to this base subject matter, neither of the remaining references cures the deficiencies of Boden as a primary reference.

Cheng describes a “dynamic organizational database” that is said to be an improvement over workflow management systems and other business process management (BPM) systems of the prior art. Cheng speaks of a “forgotten state” in which information relating to a “member object” (Fig. 5) is archived or deleted (Fig. 6: 128; col. 5, lines 15-16; col. 8, lines 31-50). However, the one example of a member object that is given is that of an employee who has left the enterprise (col. 8, lines 38-41), which is similar to the example of the insurance application given in Boden.

⁴ The online encyclopedia Webopedia (<http://www.webopedia.com/>) thus defines the verb “archive” as “[t]o copy files to a long-term storage medium for backup” and the corresponding noun as “[a] disk, tape, or directory that contains files that have been backed up” (hyperlinks omitted).

Like Boden, Cheng fails to teach archiving process models or instances as distinguished from the data managed by such objects. Certainly, Cheng does not teach transferring a process instance or process model of a WFMS database.

DeLucia relates to a software verification and validation configuration management system. A new software release is archived in a software library (Fig. 1B: step 14) when verification impact analysis has been satisfactorily performed (col. 4, lines 54-57). In this system, the software⁵ being verified is more akin to data—it is being tested rather than run productively. The software is not a process instance, nor is it selected from among instances of a process model, as suggested by the Examiner (paper no. 2, page 6). Indeed, if there is any “workflow” evident in DeLucia, it is the verification procedure itself (Figs. 1A-1B) and not the software being verified. Accordingly, DeLucia, like Boden and Cheng, fails to teach archiving process models or instances as distinguished from the data managed by such objects, as claimed by applicants.

Thus, none of the applied references, either singly or in combination, teaches transferring an object to an archive database as recited in claim 1. Therefore, these references fail to anticipate or render obvious the subject matter of this claim. Since the remaining claims are dependent on claim 1 and only add further limitations, the references are unavailing against those claims as well.

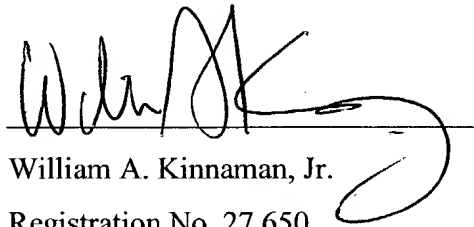
⁵ The patent characterizes the software as being for the control of safety-related operations in a nuclear power plant (col. 1, lines 21-22), but its exact function is not described and is irrelevant to the working of DeLucia’s invention.

Conclusion

For the foregoing reasons, the Examiner's rejection of claims 1-13 as being anticipated by Boden or unpatentable over Boden in combination with other references is clearly untenable and should be reversed by the Board.

Respectfully submitted,
FRANK LEYMANN et al.

By

A handwritten signature in black ink, appearing to read 'William A. Kinnaman, Jr.', written over a horizontal line.

William A. Kinnaman, Jr.

Registration No. 27,650

Phone: (845) 433-1175

Fax: (845) 432-9601

WAK/wak

CLAIMS APPENDIX

Claims on Appeal

1. A method of optimizing a workflow management system (WFMS), said method being executable by said WFMS on at least one computer system, said WFMS accessing a WFMS database containing as an object at least one process model or an instantiation of said process model (process instance), said method comprising the step of transferring said object of the WFMS database to an archive database.
2. The method of claim 1 in which the step of transferring said object of the WFMS database to the archive database is carried out if a predetermined event occurs.
3. The method of claim 1 in which the step of transferring said object of the WFMS database to the archive database is carried out if the objects are not currently used by the WFMS.
4. The method of claim 1 in which the object transferred to the archive database comprises a process instance.
5. The method of claim 4 in which the process instance transferred to the archive database is selected among instances of a certain process model depending on the value of certain properties of the process model.
6. The method of claim 4 comprising the further step of transferring from an application store to an application archive store data which is managed by programs that implement activities of a process model from which process instances are transferred to the archive database.
7. The method of claim 6 comprising the further step of transferring the data from the application archive store back to the application store.

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8. The method of claim 1 in which the object transferred to the archive database comprises a process model.
9. The method of claim 1 comprising the further step of transferring the object back to the WFMS database.
10. The method of claim 9 in which the object is transferred back to the WFMS database when it is needed again.
11. A system comprising means adapted for carrying out the steps of the method of claim 1 wherein the system comprises an archiving database.
12. A data processing program comprising software code portions for performing the method of claim 1 when the program is executed in a data processing system.
13. A computer program product comprising computer readable program means for causing a computer to perform the method of claim 1 when the program is executed in a computer.

EVIDENCE APPENDIX

(None)

RELATED PROCEEDINGS APPENDIX
(None)